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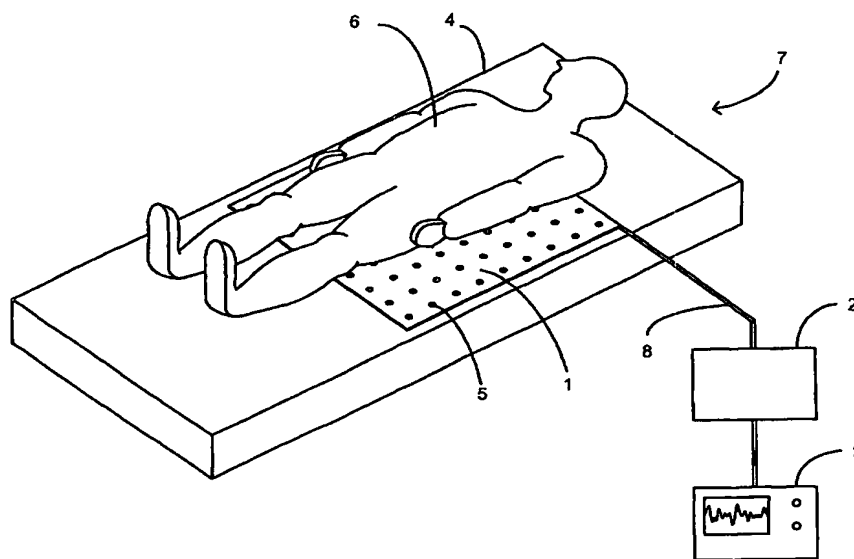
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- (71) Applicant (for all designated States except US): **TACTEX CONTROLS INC.** [CA/CA]; TACTEX CONTROLS INC., 240 Bay Street, Victoria, British Columbia V9A 3K5 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **LOKHORST, David, M.** [CA/CA]; 16 Parkcrest Drive, Victoria, British Columbia V9B 5E7 (CA). **INKSTER, D., Robert**
- (74) Agents: **MANNING, Gavin et al.; OYEN WIGGS GREEN & MUTALA**, 480 - The Station, 601 West Cordova Street, Vancouver, British Columbia V6B 1G1 (CA).
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(54) Title: **BED OCCUPANT MONITORING SYSTEM**



(57) Abstract: The invention provides a bed occupant monitoring system comprising a pressure sensitive member attached to a support member for supporting a bed occupant, the pressure sensitive member comprising a plurality of pressure sensors. Each of the pressure sensors is configured to provide a reflected wave energy pressure signal by reflecting incident wave energy with an intensity which varies with a pressure applied to the sensor. A pair of fibres are coupled to each pressure sensor, each pair of fibres comprising an input fibre and an output fibre. The fibres are coupled to interface electronics comprising a wave energy source coupled to the input fibre of each of the pairs of fibres for providing the applied light energy, and, a wave energy detector coupled to the output fibre of each of the pairs of fibres for converting the scattered light energy into an electrical signal.